

We do not believe it is necessary to add topics to the written examination to ensure a working knowledge of the newer digital technologies, which, in part, are replacing the Morse code. Examination questions covering new technology are automatically added to the question pools when they are routinely reviewed by the VECs Question Pool Committee.

If any increased difficulty in the written examinations is deemed appropriate, then it should be achieved by increasing the number of questions contained in the General and Extra Class written examination elements.

#### XIII. CEPT Telegraphy Requirements:

A common argument for two different Amateur Service telegraphy speeds is that they are needed for Amateur Service operation under CEPT guidelines. CEPT is the *European Conference of Postal and Telecommunications Administrations*, an organization of 43 different European administrations.<sup>24</sup> There are two CEPT recognized amateur radio operator licensing systems. One is for temporary (visiting guest) operation<sup>25</sup> and the other facilitates a permanently issued operator license in another CEPT or CEPT-recognized country.<sup>26</sup>

In September 1997, the U.S. State Department applied for U.S. participation in CEPT's temporary (visiting guest) licensing system

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<sup>24</sup> The 43 CEPT Administrations are: Albania, Andorra, Austria, Belgium, Bulgaria, Bosnia and Herzegovina, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Former Yugoslav Republic of Macedonia, Moldova, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, San Marino, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom and Vatican City.

<sup>25</sup> Recommendation T/R 61-01 (Nice 1985, revised in Paris 1992 and by correspondence August 1992)

<sup>26</sup> Recommendation T/R 61-02 (Chester 1990, revised in Nicosia 1994), *Harmonized Amateur Radio Examination Certificate (HAREC)*.

under Recommendation T/R 61-01. This was approved at a CEPT meeting<sup>27</sup> this past January. The CEPT arrangement permits reciprocal amateur radio operator licensing by visiting amateurs without the need to apply for a reciprocal permit. The FCC is currently in the process of implementing this arrangement.

CEPT recognizes only two license classes. The CEPT Class 2 license (which is similar to our Technician Class) yields full privileges above 30 MHz. The CEPT Class 1 license allows full privileges on all Amateur Service bands including the medium and high frequencies.

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<sup>27</sup> CEPT Radio Regulatory working Group, (WGRR), Groningen, the Netherlands

It has been decided (with strong concurrence from the American Radio Relay League)<sup>28</sup> that the FCC-granted Technician Plus (which requires 5 WPM code proficiency) and higher class licenses would qualify for the CEPT Class 1 full privilege license. This is in accordance with CEPT Recommendation T/R 61-01 which uses the same wording concerning Morse code proficiency as appears in the international Radio Regulations.<sup>29</sup> That is, no specific code speed is required.

We therefore question the logic of the ARRL endorsement of reciprocal all band full privilege operation with only minimum (5 WPM) telegraphy proficiency, yet concluding that 12 WPM code speed is required by FCC-licensed amateurs to attain the same privileges operating in our own country. Furthermore, since the CEPT nations recognize only two amateur radio operator license classes, one wonders why it is necessary to have four, five or even six license classes here in the United States. When the manual telegraphy requirement is removed from Article 32, CEPT will have only one license class.

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<sup>28</sup> See ARRL Bulletin 13, February 12, 1998, *"U.S. to participate in CEPT guest license arrangement"*

<sup>29</sup> Exact quote from Recommendation T/R 61-01: "...Administrations are responsible, in accordance with article 32 of the ITU Radio Regulations, for taking such measures as they judge necessary to verify the operational and technical qualifications of radio amateurs. Additionally radio amateurs shall not operate on frequencies below 30 MHz, unless they have proved their ability to send correctly by hand and to receive correctly by ear texts in Morse code signals..."

CEPT Recommendation T/R 61-02 makes it possible for CEPT and non-CEPT administrations to issue a *Harmonized Amateur Radio Examination Certificate (HAREC)*. The HAREC document shows proof of successfully passing an amateur radio examination which complies with the Examination Syllabus<sup>30</sup> for HAREC level A or B. The purpose of the HAREC is to facilitate the issuing of a permanent individual license to radio amateurs who stay in a CEPT or CEPT-recognized country for a longer term than that mentioned in CEPT Recommendation T/R 61-01. The HAREC syllabus specifies 12 WPM code proficiency which must be attained under certain examination conditions.<sup>31</sup>

Even if the United States did want to participate in the HAREC, an arrangement could be made for the needed examinations to be administered by a private entity (such as the ARRL or under the VEC System). Government regulations requiring 12 WPM code proficiency on all amateurs wishing to upgrade to the Extra Class are not needed. It is our belief that amateurs who wish to be certified at higher telegraphy speeds could -- and should -- obtain these certifications from the private sector.

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<sup>30</sup> The U.S. amateur radio examination syllabuses do not conform to either the written or the telegraphy requirements specified in the HAREC Examination Syllabus and no consideration is being given by the United States to joining this recommendation.

<sup>31</sup> "Sending and receiving Morse code signals: The examinee is required to demonstrate his ability to send and transcribe in Morse code, plain texts, number groups, punctuation and other signs: at a speed not less than 12 WPM for a duration of at least 3 minutes with a maximum of 4 errors in reception [and] with a maximum of 1 uncorrected and 4 corrected errors in transmission using a non-automatic Morse key."

XIV.        Advanced Class VEs for General Class:

The Commission asked in the Notice if Advanced Class operators should be permitted to be VEs for the General Class? Currently, an Advanced Class operator cannot prepare or administer a telegraphy examination for an examinee for a General Class license. Only an Amateur Extra Class licensee can administer that examination.

We agree with the ARRL that Advanced Class operators who are VEs should be permitted to prepare and administer examinations for a General Class operator license since it would increase the pool of volunteer examiners available for General Class examinations. There are indeed situations where additional VEs are needed and are in short supply — such as in a foreign country or rural area. Utilizing Advanced Class VEs to administer examinations for the General Class is legal under the law<sup>32</sup>, non-controversial and will help fulfill the need for more volunteer examiners.

XV.        Written Examination Requirements:

The Commission asked for comment in the Notice whether the ten general topics which must be asked in all written examinations should continue to be mandated by the Commission in the rules.<sup>33</sup> In short, the FCC wants to know whether the general topics set forth in Section §97.503(c) adequately covers the needed information categories relevant to determining whether an applicant has the qualifications necessary to

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<sup>32</sup> Communications Act of 1934, as amended, 47 U.S.C. 154, Provisions relating to the Commission, Section 4(A). VEs must hold a license class higher than the examinee (if one exists). Just having passed an examination does not in itself qualify a person to administer that examination to others.

<sup>33</sup> 47 C.F.R. §97.503(C) requires a specific number of examination questions be asked on ten topics in all written examinations. These topics are: FCC rules, station operating procedures, radio wave propagation, electrical principles, station equipment circuit components, practical circuits, signals and emissions, antennas and feed lines and RF safety.

become an amateur licensee.

Nine of the ten general topics have been in use for several decades. The tenth topic, "Radiofrequency environmental safety practices at an amateur station" was added in 1997 as a result of changes in the RF exposure standards.

As a general rule, these topics have served the amateur community very well over the years. They fail, however, to take changes in operating habits, technology and transmitting equipment into consideration. For example, volunteer examiners are required to administer examinations to the Technician Class examinee which contain questions on electronic circuits even though all of the VHF/UHF/micro-wave handheld, mobile and fixed station transceivers used by Technicians today are purchased in the commercial marketplace. Questions on electronic circuitry are more appropriate for the higher class operator who is more inclined to construct transmitting equipment. Extremely few - so few as to be non-existent - Technician Class amateurs build their own transmitting equipment today. That was not the case thirty years ago when FM VHF/UHF communications and repeaters were rare.

While a case could be made that even beginning amateurs should understand electronics the fact remains it is not necessary for them to do so in order to properly operate their commercially manufactured equipment. On the other hand, many amateurs believe that beginners should be more familiar with regulations, operating procedures/practices and electrical/RF safety.

The VECs Question Pool Committee is able to incorporate current and emerging technology and contemporary amateur operating practices into the existing topics, but it would be advantageous for the VEC's Question Pool Committee to be able to adjust the topics and questions as they believe appropriate. Any adjustments to the current topics and questions could - and should -- be made by the VECs when the various questions are routinely reviewed and revised.

Another point warranting consideration is that the current number of questions on the Technician, General and Advanced/Extra Class examinations is not the usual number of questions that one would

anticipate being on an examination. These odd numbers of questions appearing on an examination are caused by additional questions being added to cover new privileges (such as "Novice Enhancement"), topics (such as RF safety) or due to separations in existing examinations (such as the subdivision of Element 3 and Element 4 in 1987 and 1967.)

It would appear that the VECs should be working toward having 50 questions each on the Technician and General ...and 100 on the Amateur Extra Class. This would also slightly increase the difficulty of the General and Amateur Extra class examinations -- the license classes where the Morse telegraphy examination requirements would be reduced. Many amateurs believe that these examinations should be made more difficult to compensate for the lower telegraphy speed.

NUMBER OF QUESTIONS IN AMATEUR EXAMINATIONS		
<u>License Class</u>	<u>Present Number</u>	<u>Proposed Number</u>
Technician	65 questions	50 questions
General	30 questions	50 questions
Extra	90 questions	100 questions
TOTAL:	185 questions	200 questions

The above lineup of questions would appear to be more logical, are easy for VEs and VECs to implement and should better serve the amateur community.

The basic examination system would not be changed. That is, there would still be adequate questions in each of the pools and all questions would be multiple choice. Each written examination would be prepared from a pool of multiple-choice questions and answers that are approved by the National Conference of VECs. Each question pool would be updated on a specified cycle and all publishers and applicants would have access to current questions.

In short, we believe the written examination guidelines should be modified to provide VECs additional flexibility in determining the specific contents of the written examinations.

XVI. Conclusions:

Therefore, the foregoing considered, the National Conference of VECs requests that the Commission issue, at an early date, a Report and Order adopting a restructured Amateur Service with the following parameters:

- 1.) Number of Amateur Service License Classes is reduced from six to three by abolishing the Novice and Technician Plus Class operator licenses and combining the Advanced and Amateur Extra Class.
- 2.) Reduce the number of Amateur Service license examinations from eight to four. The remaining examinations will be:
  - Element 3(A) - 50 questions from Element 2 and 3(A) question pools.
  - Element 3(B) - 50 questions from the Element 3(B) question pool.
  - Element 4 - 100 questions from the combined Element 4(A) and 4(B) question pools.
  - Element 1(A) - Telegraphy examination at five words per minute.

Respectfully submitted:  
National Conference of VECs

October 1, 1998

Frederick O. Maia, W5YI  
Chairman, NCVEC Rules Committee

CERTIFICATE OF SERVICE:

The American Radio Relay League submitted three Petitions which are being addressed in Docket No. WT 98-143. On October 1, 1998, I mailed this document to ARRL General Counsel Christopher D. Imlay, of the Law Firm of BOOTH, FRERET, IMLAY & TEPPER, P.C., 5101 Wisconsin Avenue, N.W. Suite 307, Washington, DC 20016 as required by Section §1.47 and §1.405 of the Commission's Rules (47 C.F.R. §1.47, 47 C.F.R. §1.405)



XVII. Appendix:

§ 97.9 Operator license.

(a) The classes of amateur operator licenses are: Novice, Technician, General, Advanced and Amateur Extra. A person who has been granted an operator license is authorized to be the control operator of an amateur station with the privileges of the operator class specified on the license.

(b) A person who has been granted an operator license of Novice, Technician, General or Advanced Class and who has properly submitted to the administering VEs an application document, FCC Form 610, for an operator license of a higher class, and who holds a CSCE indicating that the person has completed the necessary examinations within the previous 365 days, is authorized to exercise the rights and privileges of the higher operator class until final disposition of the application or until 365 days following the passing of the examination, whichever comes first.

§ 97.17 Application for new license or reciprocal permit for alien amateur licensee.

(b) Each application for a new amateur service license must be made on the proper document:

(1) FCC Form 610 for a new Technician, General or Amateur Extra Class operator/primary station:

(c) No application for a new Novice, Technician Plus or Advanced Class operator/primary station license will be accepted for filing.

§ 97.21 Application for a modified or renewed license.

(3) May apply for renewal of the license for another term. Application for renewal of a Technician Plus Class operator/primary station license will be processed as an application for renewal of a Technician Class operator/primary station license.

## Subpart F - Qualifying Examination Systems

### § 97.501 Qualifying for an amateur operator license.

An applicant must pass an examination for a new amateur operator license grant and for each change in operator class. Each applicant for the class of operator license grant specified below must pass or otherwise receive credit for, the following examination elements:

- (a) Amateur Extra Class operator: Elements 1(A), 3(A), 3(B) and 4;
- (b) General Class operator: Elements 1(A), 3(A) and 3(B);
- (c) Technician Class operator: Element 3(A).

### § 97.503 Element standards.

(a) A telegraphy examination must be sufficient to prove that the examinee has the ability to send correctly by hand and to receive correctly by ear texts in the international Morse code at not less than the prescribed speed, using all the letters of the alphabet, numerals 0-9, period, comma, question mark, slant mark and prosigns AR, BT and SK.

- (1) Element 1(A): 5 words per minute;

(b) A written examination must be such as to prove that the examinee possesses the operational and technical qualifications required to perform properly the duties of an amateur service licensee. Each written examination must be comprised of a question set as determined by the Volunteer Examiner Coordinators.

- (1) Element 3(A): 50 questions concerning the privileges of a Technician Class operator license. The minimum passing score is 37 questions answered correctly.

- (2) Element 3(B): 50 questions concerning the additional privileges of a General Class operator license. The minimum passing score is 37 questions answered correctly.

- (3) Element 4: 100 questions concerning the additional privileges

of an Amateur Extra Class operator license. The minimum passing score is 75 questions answered correctly.

(c) The topics and number of questions required in each question set are determined by the VECs Question Pool Committee.

§ 97.505 Element credit.

(a) The administering VEs must give credit as specified below to an examinee holding any of the following documents:

(1) An unexpired (or expired but within the grace period for renewal) General or Advanced Class operator license: Elements 1(A), 3(A), and 3(B).

(2) An unexpired (or expired but within the grace period for renewal) Technician Plus Class operator license (including a Technician Class operator license granted before February 14, 1991): Elements 1(A), and 3(A).

(3) An unexpired (or expired but within the grace period for renewal) Technician Class operator license: Element 3(A).

(4) An unexpired (or expired but within the grace period for renewal) Novice Class operator license: Elements 1(A).

(5) A CSCE:

(i) Each element the CSCE indicates the examinee passed within the previous 365 days.

(ii) Element 1(A) if examinee previously held a Technician Plus license.

(6) An unexpired (or expired for less than 5 years) FCC-issued commercial radiotelegraph operator license document or permit: Element 1(A).

(7) An expired FCC-issued Technician Class operator license document (or proof of having hld the document) granted before March 21, 1987: Element 3(B).

(8) An expired, or unexpired, Technician Class license document (or proof of having held the document) granted before February 14, 1991: Element 1(A).

(b) No examination credit, except as herein provided, shall be

allowed on the basis of holding or having held any other license grant or document.

§ 97.507 Preparing an examination.

(a) Each telegraphy message and each written question set administered to an examinee must be prepared by a VE who has been granted an Amateur Extra Class operator license. A telegraphy message or written question set may also be prepared for the following elements by a VE who has been granted an FCC operator license of the class indicated:

(1) Element 3(B): Advanced Class operator.

(2) Element 1(A) and 3(A): Advanced or General Class operator.

(b) Each question set administered to an examinee must utilize questions taken from the applicable question pool.

(c) Each telegraphy message and each written question set administered to an examinee for an amateur operator license must be prepared, or obtained from a supplier, by the administering VEs according to instructions from the coordinating VEC.

(d) A telegraphy examination must consist of a message sent in the international Morse code at no less than the prescribed speed for a minimum of 5 minutes. The message must contain each required telegraphy character at least once. No message known to the examinee may be administered in a telegraphy examination. Each 5 letters of the alphabet must be counted as 1 word. Each numeral, punctuation mark and prosign must be counted as 2 letters of the alphabet.

§ 97.509 Administering VE requirements.

(a) Each examination for an amateur operator license must be administered by at least 3 administering VEs at an examination session coordinated by a VEC. Before the session, the administering VEs or the VE session manager must ensure that public announcement is made stating the location and time of the session. The number of examinees at the session may be limited.

(b) Each administering VE must:

(1) Be accredited by the coordinating VEC;

(2) Be at least 18 years of age;

(3) Be a person who has been granted an FCC amateur operator license of the class specified below:

(i) Amateur Extra, Advanced, or General Class in order to administer a Technician Class operator license examination;

(ii) Amateur Extra or Advanced Class in order to administer a General Class operator license examination.

(iii) Amateur Extra Class in order to administer a Amateur Extra Class operator license examination.

(4) Be a person whose grant of an amateur station license or amateur operator license has never been revoked or suspended.

(c) Each administering VE must be present and observing the examinee throughout the entire examination. The administering VEs are responsible for the proper conduct and necessary supervision of each examination. The administering VEs must immediately terminate the examination upon failure of the examinee to comply with their instructions.

(d) No VE may administer an examination to his or her spouse, children, grandchildren, stepchildren, parents, grandparents, stepparents, brothers, sisters, stepbrothers, stepsisters, aunts, uncles, nieces, nephews, and in-laws.

(e) No VE may administer or certify any examination by fraudulent means or for monetary or other consideration including reimbursement in any amount in excess of that permitted. Violation of this provision may result in the revocation of the grant of the VE's amateur station license and the suspension of the grant of the VE's amateur operator license.

(f) No examination that has been compromised shall be administered to any examinee. Neither the same telegraphy message nor the same question set may be re-administered to the same examinee.

(g) Passing a telegraphy receiving examination is adequate proof of an examinee's ability to both send and receive telegraphy. The administering VEs, however, may also include a sending segment in a telegraphy examination.

(h) Upon completion of each examination element, the administering VEs must immediately grade the examinee's answers. The administering

VEs are responsible for determining the correctness of the examinee's answers.

(i) When the examinee is credited for all examination elements required for the operator license sought, 3 VEs must certify on the examinee's application document that the applicant is qualified for the license and that they have complied with these administering VE requirements. The certifying VEs are jointly and individually accountable for the proper administration of each examination element reported on the examinee's application FCC Form 610. The certifying VEs may delegate to other qualified VEs their authority, but not their accountability, to administer individual elements of an examination.

(j) When the examinee does not score a passing grade on an examination element, the administering VEs must return the application document to the examinee and inform the examinee of the grade.

(k) The administering VEs must accommodate an examinee whose physical disabilities require a special examination procedure. The administering VEs may require a physician's certification indicating the nature of the disability before determining which, if any, special procedures must be used.

(l) The administering VEs must issue a CSCE to an examinee who scores a passing grade on an examination element.

(m) Within 10 days of the administration of a successful examination for an amateur operator license, the administering VEs must submit the application document to the coordinating VEC.

#### § 97.523 Question pools.

All VECs must cooperate in maintaining one question pool for each element and determining the topics and number of questions in each pool. Each question pool must be published and made public prior to its use in making a question set. Each question on each VEC question pool must be prepared by a VE holding the required FCC-granted operator license. See Section §97.507(a) of this part.